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November 16, 2005

Sent via U.S. Mail

Eric Johnson
U.S. Environmental Protection Agency
Region 8, 8ENF-T
999 18th Street, Suite 300
Denver, Colorado 80202-2466

RE: Progress report for October 2005 activities - Hecla Mining Company Apex Site (EPA ID No. UT982589848, Docket No. RCRA-8-99-06)

Dear Mr. Johnson:

Per paragraph 64 of the Order, enclosed is a copy of the October 2005 progress report for your records.

If you have any questions please do not hesitate to call me at (208) 769-4135 or e-mail at cgypton@hecla-mining.com.

Sincerely,

Chris Gypton
Project Manager

Encl

Cc: HMC Legal Dept (w/o attachments)
John Jacus, Esq. (DG&S)



November 16, 2005

Sent via U.S. Mail

Glenn Rogers, Chairman.
Shivwits Band of Paiute Indian Tribe
P.O. Box 448
Santa Clara, Utah 84765

John Krause
Bureau of Indian Affairs Phoenix Area Office
U.S. Department of Interior
P.O. Box 10
Phoenix, AZ 85001

Kelly Youngbear
BIA Southern Paiute Agency
P.O. Box 720
St. George, UT 84771

RE: Progress report for October 2005 activities - Hecla Mining Company Apex Site (EPA ID
No. UT982589848, Docket No. RCRA-8-99-06)

Dear Chairman Rogers, Mr. Krause and Ms. Youngbear:

Per paragraph 64 of the Order, enclosed is a copy of the October 2005 progress report for your records.

If you have any questions please do not hesitate to call me at (208) 769-4135 or e-mail at cgypton@hecla-mining.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Gypton", with a long, sweeping horizontal line extending to the right.

Chris Gypton
Project Manager

Encl

Cc: HMC Legal Dept. (w/o attachments)
John Jacus, Esq. (DG&S) (w/o attachments)
Eric Johnson (USEPA, Region VIII) (w/o attachments)

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L3-29

November 16, 2005



MEMORANDUM TO: Paul Glader

COPIES TO: file, distribution

FROM: Chris Gypton

SUBJECT: **Progress Report No. 18 for period ending October 31, 2005; Pond 2 Final Closure - Apex Site, Washington County, Utah**

Summary

Weather conditions at the site were generally satisfactory all month, with the exception of early in the week of October 16th. Approximately 1.5 inches of rain fell around the 18th of the month. Provisions had been made for dealing with excessive rainfall so impact to work installed to date was minimal.

Embankment re-grading and compaction was completed on October 29th. The contractor started installation of the cover system (GCL and protective soil layer) on October 24th and completed the majority of this work on October 30th.

Field activities are expected to be complete the week of November 20th.

Major Issues

1. BIA demand to have Pond 2 removed from Shivwits' property – A response to BIA's July 12th letter was issued on August 2nd. BIA submitted a follow-up letter dated August 25th stating they will provide additional justification for removal of Pond 2. This issue is still not resolved, however we are proceeding with Phase III with the force majeure provisions in the 7003 order still in effect.

Work Planned for Next Period

1. Complete the final grading of the protective soil cover over the GCL.
2. Complete the diversion ditch re-grading and place the erosion protective layer.
3. Complete re-contouring of on-site borrow areas.
4. Install settlement monuments.
5. Hydroseeding.
6. Final clean-up of site, equipment decontamination and contractor demobilization.

Work in Process

Procure Outside Services

1. No activity - all work in this area is complete.

Procure Materials

1. No activity

Contractor Submittals

1. The contractor proposed use of erosion protection material with a D₅₀ of 3" instead of the 1" specified. The Project Engineer stated the change would be acceptable provided the particle size distribution achieved the same performance as that of the 1" material, and the layer thickness was at least 2x the proposed D₅₀ size (i.e. minimum of 6"). A revised particle size distribution was issued to the contractor. The particle size distribution of the proposed material will be verified before it is incorporated into the project. Refer to *Supplemental Attachments* for additional notes by the Project Engineer.

Seepage Collection System Maintenance

1. Work in this area is complete – the collection ponds were cleaned out and the contents and lining materials buried in the impoundment the week of October 9th.

Phase II Drain/Evaporate Excess Water

1. No activity - all work in this area is complete.

Phase III Final Cover Construction

1. Re-sloping and compaction of the top of the impoundment was completed the week of October 16th.
2. GCL installation started on October xxth and was completed on October 31st. The 12 inch soil cover was placed concurrent with GCL installation; this work was 90% complete as of the end of the month.

Sampling and Analysis in Period

Material Characterization

1. No activity

Field Tests, Inspections & QA/QC

1. The Project Engineer (Monster Engineering) inspected the work on October 24th through the 26th, the field notes are included in the Supplemental Attachments section. All potential issues were resolved before the end of the week.
2. Gila Management continuously inspected GCL installation with input from the Project Engineer, and documented the installed location of each roll of GCL used in the project. This data will be included in the close-out report of construction activities.
3. A grade verification survey was made with a laser level during the week of October 23rd. Eight grade profiles were shot, and confirmed there were no low spots in the subgrade and the surface drains away in all directions from the high point.
4. Random compaction testing indicates the work exceeds that minimum 90% density specification. Test results are included in the Supplemental Attachments section.

Cost and Schedule

Committed costs in October 2005 were approximately \$334,700. Total project to date committed is approximately \$1,076,800. Forecast cost at completion is expected to be \$1,190,100.

The cost report for October is attached. Current status of the deliverables listed in the RCRA 7003 order is as follows:

Deliverable	Reference Paragraph	Due	Remarks
Post warning signage around perimeter of site	57	15 days after effective date of order	Work completed on March 9, 2004
Begin implementation of closure plan	63	45 days after receipt of filing of order	Work started on February 23, 2004
Monthly progress reports	64	28th day after close of month	Requirement in effect after order is filed.
Completion report	65	30 days after completion of all closure plan tasks	To be submitted within 30 days after work has been physically completed and all contracts closed out.

The update of the schedule milestones is on the following table:

Milestone	Target	Actual	Remarks
Issue bid package – Phase I (Sump Drains)	6/14/04	6/15/04	Portion of RFP materials issued at pre-bid on 6/14/04; remainder sent via courier
Issue RFP package – Phase III	6/24/04	6/24/04	
Award contract for Phase I	6/24/04	6/29/04	Date contract was shipped to Hughes
Pre-bid meeting – Phase III	7/19/04	7/19/04	
Start Phase I (Sump Drains) construction	7/12/04	7/19/04	
Start Phase II (Evaporation)	7/19/04	7/29/04	
Receive bids for Phase III	8/2/04	8/2/04	
Re-bid Phase III contract package	April 2005	4/27/05	Date bid package was sent to Hughes
Start Phase III construction	End of August 2005	8/29/05	Start of contractor mobilization
Complete Phase III construction	Mid Nov. 2005		Revised target based on progress to date

Apex Site
Pond 2 Final Closure
Project Cost Report

Activity	2004 Budget	Revised Budget May 2004	Committed Cost this Period	Cumulative Committed Cost To Date 10-31-05	Forecasted Cost To Complete	Forecasted Final Cost	Remarks on Forecast to Complete
Phase I - Drain Excess Liquid From Tailings							
Test wick program - Nilox		35,000		35,000	0	35,000	
Earthwork during wick test program		2,000		1,768	0	1,768	
Install drainage piping and sumps							
Contractor mobilization/demobilization		5,500		5,500	0	5,500	
Install sumps - material & labor		20,000		24,500	0	24,500	
Build surface evaporation ponds		2,700		838	0	838	
Remove existing evaporation ponds		2,000		0	0	0	Work moved to Phase III
Bury existing pond material & regrade		2,000		0	0	0	Work moved to Phase III
Survey monuments		3,500		1,160	0	1,160	Cost to complete transferred to As-built drawing line item
Subtotal Phase I	169,200	72,700		68,766	0	68,766	
Phase II - Evaporate Excess Liquid							
Operate evaporation & pumping system		8,000		9,585		9,585	FY 2004 work only
Test pits to determine dewatering progress				1,320		1,320	
Upgrade evaporation cells & collection sumps				132,114		132,114	
Dewatering & seepage collection management				104,468		104,468	T&M labor + equipment; February '05 through Oct '05
Subtotal Phase II	6,000	8,000	0	247,487	0	247,487	
Phase III - Regrading & Final Cover System							
Contractor mobilization/demobilization		20,000		33,226	19,200	52,426	
Excavate existing embankment		15,000	59,250	132,050	12,500	144,550	Incl misc. repairs to existing liner edge added to scope
Final grading of 1% surface		2,500		0	0	0	Incl w/ 12" protection layer
Place barrier layer (GCL) - top		200,000	167,000	167,000	0	167,000	
Place barrier layer (GCL) - outcrops		50,000		0	0	0	Incl w/ GCL cover cost
Excavate diversion channel		9,100	20,000	20,000	20,000	40,000	
Place 12" protection layer on top surface		19,000	45,000	45,000	16,000	61,000	Incl \$11,000 allowance for hydroseeding added to scope
Reconstruct outside embankment		7,350		0	0	0	Incl w/ excavation of existing embankment
Finish grade 1% surface - top		3,000		0	0	0	Incl w/ 12" protection layer
Place surface layer at outcrops (D50 = 1")		4,800		0	0	0	Incl w/ 12" protection layer
Recontour diversion channel for drainage		2,000		0	0	0	Incl w/ diversion channel exc
Place diversion channel erosion protection (3" rock)		3,800		0	0	0	Incl w/ diversion channel exc
Surveying - diversion channel drainage		2,500		0	0	0	Incl w/ diversion channel exc
Remove existing evaporation ponds		0		0	0	0	Incl w/ excavation of existing embankment
Clear site for construction		3,000		7,500	0	7,500	
Performance & Payment Bond		0		0	0	0	Requirement waived
Subtotal Phase III	337,000	342,050	291,250	404,776	67,700	472,476	
Field Indirect Costs							
Construction Management labor		108,360	24,800	219,021	16,660	235,571	
Construction Management field expenses		38,575	5,880	50,342	4,555	54,897	
Field office trailer		6,625	165	3,158	665	3,823	
COA testing		9,200	3,000	3,750	3,000	6,750	
COA completion report		5,000		0	5,000	5,000	
Survey and layout		2,208	1,200	1,548	1,180	2,708	includes as-built survey
Material classification tests		1,500		5,782	750	6,512	
Consulting Engineer		42,200	5,598	49,211	8,000	57,211	
Subtotal Consultants	164,500	213,568	40,623	332,791	39,680	372,471	
Hecia Costs							
Labor	15,500	15,500	2,030	20,077	4,200	24,277	
Travel expenses	3,200	3,200	779	2,877	1,700	4,577	
Subtotal Hecia Costs	18,700	18,700	2,809	22,954	5,900	28,854	
Total Pond 2 Final Closure	715,400	655,018	334,682	1,076,773	113,280	1,190,053	

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Supplemental Attachments

1. "October Site Visit and Construction Review – Apex Site", memo dated November 2, 2005 by Doug Gibbs, P.E., Monster Engineering, Inc.
2. "Fill Observation and Testing Report", October 11, 2005, by Applied Geotechnical Engineering Consultants, P.C.

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MONSTER ENGINEERING INC
ENGINEERING DESIGN MANAGEMENT

3031 bonner spring ranch road
laporte, colorado 80535

(970) 221.7177

cell (970) 219.1335

fax (970) 224.0161

email: monster@peakpeak.com



MEMORANDUM

TO: Chris Gypton (Hecla Mining Company)
FROM: Doug Gibbs (Monster Engineering Inc.)
DATE: 11/2/05
SUBJECT: **October Site Visit and Construction Review - Apex Site**

MEI visited the Apex Site on October 24th through October 26th 2005 to:

- ▶ observe and review current construction activities
- ▶ discuss specific design features
- ▶ provide design guidance on specific issues concerning Pond 2 Closure

Enclosed with this memorandum are photos taken during the site visit which show specific areas reviewed with Gila Management, Hughes (general contractor), and Rainy Day (GCL contractor), and a list of observations / suggestions provided to Gila Management prior to MEI leaving the site.

Overall construction appeared to be progressing quickly. Weather conditions had been very good since MEI's last site visit and were excellent while MEI was on-site. During the site visit contractors worked on the following areas:

- ▶ exposing and cleaning the existing liner and removing excess liquids located near the liner tie-in location
- ▶ excavating tie-in trenches at the top and bottom of the outslopes
- ▶ placing GCL on the outslopes
- ▶ overlapping (sealing) new GCL liner to existing liner with a granular bentonite
- ▶ placing and grading GCL cover soil
- ▶ planning for continued final grading of the top surface in preparation for GCL deployment

Al Kane was on site during MEI's site visit as Gila Management continued with their construction oversight. General areas observed and reviewed, and particular items discussed are listed below.

Exposure and Cleaning of the Existing Liner

All exposed liner tie-in areas were examined as were areas where patches had been installed. Hughes worked immediately ahead of Rainy Day removing excess solids, exposing the existing liner, cleaning the surface with brush brooms, and installing patches as required. Additional work was required due to recent rains washing embankment materials (solids and liquids) down into the liner tie-in location.

Removal of Excess Liquids

Excess liquids present at the outslope toe due to recent rains were removed by utilizing pumps or hand bailing. Liquids were typically pumped to or spread on top of the pond.

Tie-in Trench Excavation

Hughes also worked immediately ahead of Rainy Day excavating anchor trenches located at the top and bottom of the outslopes. MEI inspected all completed trenches prior to GCL deployment. Final trench configuration was satisfactory with laborers removing oversized and angular materials, and

filling voids prior to GCL deployment. The total distance from top trench to bottom trench was reduced from greater than 50 feet to approximately 46 feet to allow for the 150 long GCL rolls to be utilized fully. Alpha Engineering measured several outslopes during the site visit and determined that all were flatter than the specified 3.5:1, typically measuring near 4:1.

GCL Deployment

During the site visit Rainy Day deployed only on the outslopes. MEI requested that either Gila or the contractors walk all slopes prior to deployment to verify that all oversized and potentially damaging materials were removed, and that all unacceptable voids were filled. CETCO's "Supergroove" sealing system was approved after reviewing current specifications from CETCO (dated 2005). Rainy Day's deployment methods and technique were acceptable. MEI inspected all deployed GCL prior to cover soil placement. Several areas required modification to meet the specifications including overlap direction and length, seam location at panel ends (not on the outslopes), granular bentonite installation (between panels that were cut on-site and where CETCO's Supergroove had been removed), and folds near the GCL to existing liner tie-in location.

GCL to Existing Liner Tie-in

Rainy Day placed granular bentonite as a seal between the exiting and new GCL liners as specified. All areas were examined by AI (Gila) and / or MEI prior to GCL deployment.

Cover Soil Placement

Hughes worked immediately behind Rainy Day in order to cover all GCL deployed by the end of each work day. AI and MEI observed Hughes' placement technique and requested that they ensure that cover soil be placed in layers at least 1 foot in thickness. Initial pushes by the dozer operator were less than 1 foot. Typically more than 2 feet of cover soil was placed in high traffic areas (near the outslope toe). Cover material was end-dumped by articulating dump trucks and then spread either uphill or side-hill with a low ground pressure dozer. Typical final slopes appeared to be near 5:1 after completion of cover soil placement (flatter than the design slopes). Soils were pushed in the correct direction and did not go against the GCL overlap. Soils utilized from the borrow area were excellent as cover material with almost no particles greater than 1 inch in size.

Final Top Surface Grading

The top surface was going to require additional grading prior to GCL deployment as large low areas existed during MEI's site visit. In particular, the east side of the pond required significant (+1 foot) fill in one area to achieve a 1 % grade and the specified +/- 0.2' at all locations. Grade stakes were set on a 50 foot grid by Alpha Engineering on Wednesday morning. In order to achieve the correct configuration, Hughes was going to have to remove excess materials from the west side of the impoundment top and work that material towards the east, thereby lowering the center point elevation by approximately 0.5 feet. We reviewed that the specified maximum top slope surface is 1% with limits of +/- 0.2 feet at any one location.

MEI suggested that AI, Hughes, and Rainy Day verify compaction of the top surface after the recent rains, addition of liquid from the outslope toe, and required re-working. Several areas were too wet and soft to allow GCL deployment during MEI's site visit.

Diversion Channel / Cover Material Borrow Area

All questions concerning east side outslope and protection of the existing site fence, borrow material types and uses, and erosion protection location and intent were discussed and agreed upon. MEI approved the use of larger rock as a substitute for the currently specified D₅₀ = 3 inch material. MEI informed AI and Hughes that any rock utilized must fall within that rock size's gradation envelope. MEI provided Gila and Hughes with gradation envelopes for D₅₀ = 2.5 inch 2.75 inch materials.

Apex Site Visit – 10/24 – 10/26/05

Monster Engineering Inc. Observations and Suggestions Provided to Gila Management

(#1 - #11 provided to Gila at the site and faxed to Hecla on 10/26)

(#12 through #14 discussed in person with Gila and Hecla prior to leaving the site on 10/26)

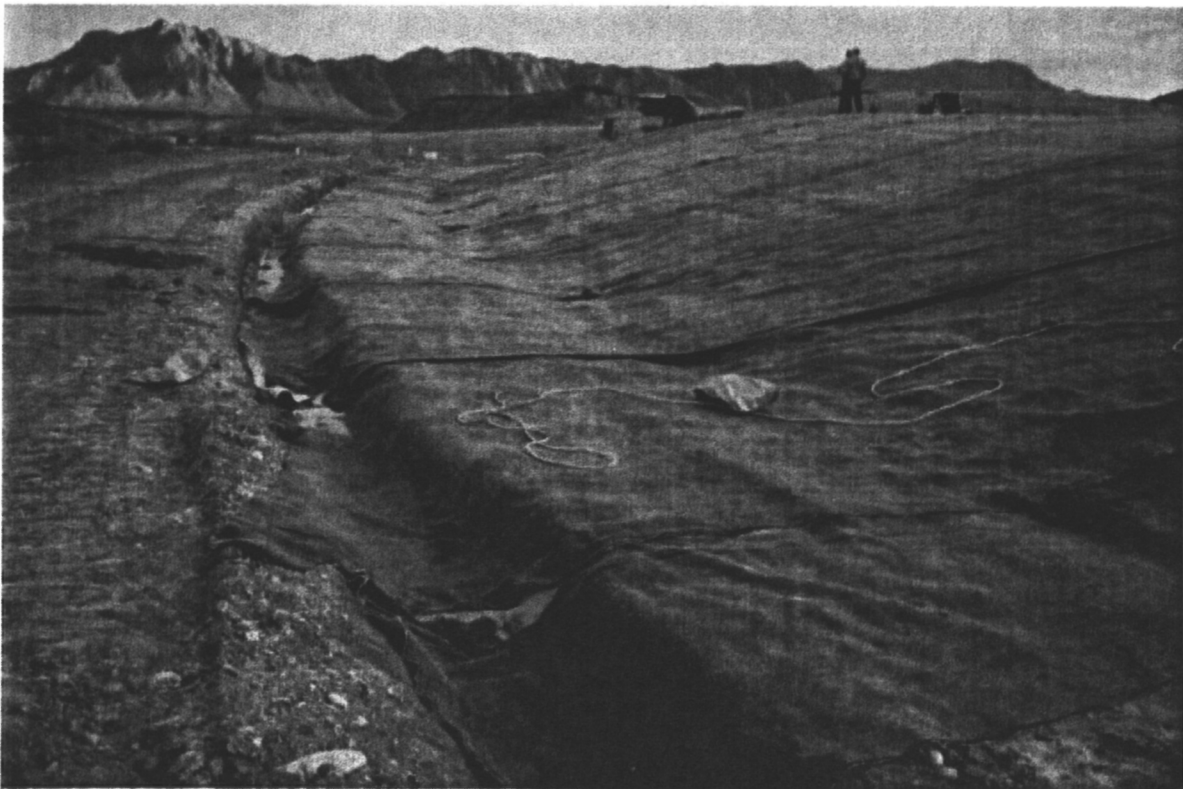
MEI's Suggested Priority	Area / Material	Observation / Suggestion
1	GCL Deployment	CETCO's "Supergroove" seam sealing technique approved. Use additional bentonite at end of panels and at all "cut to fit" panels. No seams allowed perpendicular to 3.5:1 slope. Panel Deployment Plan provided by contractor is approved.
2	GCL QA / QC	Most important areas for observation and QA are at, and within 3 vertical feet, of the seam between the old liner and new GCL liners. Watch for and do not allow folds in GCL, especially at seam locations. Examine all seams for either Supergroove sufficient granular bentonite. Inspect all panels for correct layering (i.e. shingling). No soil allowed in overlap / seam areas. No deployment allowed in standing water / liquid. How to patch damaged GCL areas reviewed and discussed.
3	Surveying / QA	More surveying is required to verify slopes, trench locations, material thicknesses including, and allow for accurate post construction documentation of work completed according to plan. Surveying should include but may not be limited to: <ol style="list-style-type: none"> 1) Outslopes – pre-GCL placement (what is current slope?) (collect data at top, mid-slope, and bottom at 50' intervals minimum). If GCL is already covered then holes must be hand dug back down to GCL to allow for soil cover thickness measurement and survey shots on GCL at those locations. 2) Outslopes – post cover soil placement (collect data at same locations as above) 3) Outslopes – post rock (same locations as above) 4) Anchor trenches – top and bottom at lip (50' minimum) 5) Slope break (1% to 3.5:1) – post GCL placement 6) Slope break (1% to 3.5:1) – post cover soil placement 7) Pond top – to verify Contractor's work (or to provide feedback on where they need to cut and fill to achieve 1% - 50' grid suggested) 8) Pond top – after 1% achieved, either pre or post GCL placement (50' grid suggested) – provides baseline for later survey / verification of 1' of cover soil 9) Pond top – post cover soil placement (1' of cover verification) 10) Erosion protection trench (to verify correct depth and slope) 11) Erosion protection rock (to verify placed thickness prior to backfilling) <p>Set up standard survey schedule (suggest every 3 to 5 work days). Don't let slope break location "drift" as cover soil is placed. Use feedback from 10/26/05 survey to make sure contractor balances current waste material within the pond to create the required 1% top slope. Don't import additional clean borrow from borrow area as we may run out of borrow for GCL cover and then have to pay contractor to haul in additional borrow.</p>

4	GCL Cover Soil	<p>Verify that contractor maintains minimum 1' cover at all times.</p> <p>Don't allow excess "pushing" by dozer.</p> <p>Place 2' of cover only in high traffic areas.</p> <p>Don't allow sudden stops and starts by equipment on cover soil.</p> <p>Don't allow contractor to place excess (>1') in all areas as borrow materials are limited.</p> <p>Verify soil cover material thicknesses with hand-dug holes in areas where surveying QA has not been collected on GCL elevations (NW, N, NE, E sides of pond).</p>
5	Subgrade	<p>Currently too soft for GCL deployment on top in limited areas.</p> <p>These areas require additional drying and compaction.</p> <p>Subgrade to be tested and verified prior to GCL deployment, especially in current "wet" areas.</p> <p>Subgrade must be approved by contractor ("Rainy Day").</p> <p>Oversized must be hand picked and voids must be filled prior to GCL deployment.</p>
6	Excess Liquids	<p>Contractor should move discharge hose constantly and spread liquid to speed up evaporation.</p> <p>Don't allow liquid to "pond" on top.</p>
7	GCL Storage / Protection	<p>Some rolls in storage area not covered (original packaging torn)</p> <p>Some rolls in storage area damaged (potentially during transport).</p> <p>Some rolls stored incorrectly (bent rolls).</p>
8	Borrow Area	<p>Stay in high quality cover soils area (very little rock) as there is a supply of this material.</p> <p>We don't want to have to go off-site for cover soils (too expensive).</p> <p>If rocky materials are encountered don't use as GCL cover.</p> <p>Contractor to re-grade borrow area at end of project to complete diversion channel configuration.</p>
9	Anchor Trenches	<p>Approved by Hecla.</p> <p>Remove oversize prior to GCL deployment.</p> <p>GCL must go through bottom of trench.</p> <p>Remove angular materials at trench corners (at the upper lip).</p> <p>Change distance from bottom trench to top trench to less than 50' (GCL rolls are 150' in length).</p>
10	Erosion Protection	<p>Hecla approved larger rock to replace D50 = 1".</p> <p>Rock materials on-site do not pass the D50 = 3" specification (too uniform in size).</p> <p>Current on-site rock needs more +3" or more -1.5" material.</p> <p>Contractor should not ship more to the site until it passes spec.</p> <p>Preferable to test (and pass) gradation of any and all rock prior to shipment to site.</p>
11	Contractor	<p>Contractor will have difficult time both staying in front of and covering up after "Rainy Day" has placed GCL.</p> <p>Blade not holding up.</p> <p>If it breaks down, work will slow or stop.</p>
12	Rain Protection	<p>AI will discuss rain protection for Friday (10/28/05) with Contractor.</p> <p>Don't allow storm runoff to reach and hydrate currently deployed GCL on sideslopes.</p>

13	Cut & Fill Work on Top Slope	<p>Al will talk with Contractor to make sure they get the top cut / filled and re-bladed to a 1% slope using only the current waste materials and not importing additional borrow.</p> <p>To create balance cut & fill:</p> <ol style="list-style-type: none">1) East side requires up to maximum of 1.3' fill (average of about 0.6' fill over 2 acres).2) West side requires average cut of approximately 0.4'.3) Current elevation of pond center will have to be reduced by approximately 0.4' to 0.6' in order to balance materials.
14	GCL Material Verification	<p>Al to collect bills of lading, individual roll tags and verify that correct materials have been shipped to the site.</p> <p>Al does not appear to have sufficient time to record individual rolls and their deployment locations.</p> <p>Jeff will collect all paperwork, QA/ QC from CETCO concerning materials shipped to the site, and will verify with Al's site information.</p>



GCL Deployment



Anchor Trench Before Backfill



Soil Cover Placement over GCL



Anchor Trench and GCL at top of Slope



Granular Bentonite Seaming

**APPLIED GEOTECHNICAL ENGINEERING CONSULTANTS, P.C.**

**600 West Sandy Parkway
Sandy, Utah 84070
(801) 566-6388**

**158 West 1600 South
St. George, Utah 84770
(435) 673-8850**

FILL OBSERVATION AND TESTING REPORT

PROJECT NAME: Alex ONG P.O.L. C90
PROJECT NO.: _____ DATE: 10/11/05
DESCRIPTION OF LOCATION: _____

NUCLEAR GAUGE SERIAL NO.: 1869C
DENSITY STANDARD COUNT: 2951
MOISTURE STANDARD COUNT: 716
PAGE: 1 of 1

[illegible]**Remarks:**

A 00620 D

Testing Requested By:

All to be passed

FIELD OBSERVER

REVIEWED BY

ALLEN C. JIN

This report presents opinions formed as a result of our observation of fill placement. We have relied on the contractor to continue applying the recommended compactive effort and moisture to the fill during times our observer is not observing operations. Tests are made of the fill only as believed necessary to calibrate our observer's judgment. Test data are not the sole basis for opinions on whether the fill meets specifications.

The services referred to herein were performed in accordance with the standard of care practiced locally for the referenced method(s) and relate only to the condition(s) observed or sampled(s) tested at the time and place stated herein. ADEC makes no other warranty or representation, including source of materials submitted by others.

Proctor ID	ASTM Test Method	Soil Description
A		CLAY / silty